

Exhibit A

Listing of all claims and showing the changes made in this Amendment

1. A method for processing real-time applications, the method comprising:
providing a front-end server;
providing a plurality of dedicated processors coupled to the front-end server so that the front-end server can communicate with at least one of the plurality of dedicated processors;
selecting at least one of the plurality of dedicated processors to execute a selected application;
transferring the selected application from a memory device to the at least one of the plurality of dedicated processors for execution;
initiating communication between a plurality of users and the at least one of the selected dedicated processors so that the plurality of users can participate in the execution of the selected application;
executing the selected application at the at least one of the selected dedicated processors; and
suspending communication between the plurality of users and the front end server.
2. A method according to claim 1 further comprising:
storing a plurality of applications in the memory device, the memory device being coupled to the front-end server; and
at the front-end server, generating appropriate communication signals to download the selected application to the at least one of the plurality of dedicated processors.
3. A method according to claim 1 further comprising:

storing applications in a memory associated with each of the plurality of dedicated processors.

4. A method according to claim 1 wherein selecting at least one of the plurality of dedicated processors includes polling the plurality of dedicated processors by the front-end server to determine which one of the plurality of dedicated processors is available to execute the selected application before that application is downloaded to the selected dedicated processor.

5. A method according to claim 1 wherein selecting at least one of the plurality of dedicated processors includes the plurality of dedicated processors communicating their status to the front-end server.

6. A method according to claim 1 wherein the plurality of dedicated processors are heterogeneous.

7. The method of claim 1 further comprising:
providing a voice bridge between one or more users of the plurality of users.

8. The method of claim 1 further comprising:
providing a voice bridge between one or more users of the plurality of users and one or more processors of the plurality of dedicated processors.

9. A method for processing real-time applications which may be executed by a plurality of users, the method comprising:

providing a front-end server that has access to a plurality of applications;
providing a plurality of dedicated processors that communicate with the front-end server, the plurality of dedicated processor being inhomogeneous;
receiving a message from at least one user of the plurality of users to the front-end server that the at least one user desires to have executed a particular application;
retrieving the particular application selected by the at least one user;

selecting a dedicated process that is of the appropriate type and capacity to run the particular application;

downloading the particular application selected by the at least one user to a memory in the selected dedicated processor;

initiating communication between the plurality of users and the selected dedicated processor; and

executing the particular application selected by the at least one user on the selected dedicated processor.

10. The method of claim 9 further comprising:

requesting at the front-end server status information from the plurality of dedicated processors; and

receiving the status information at the front-end server.

11. The method of claim 9 further comprising:

after initiating communication between the plurality of users and the selected dedicated processor, suspending communication between the plurality of users and the front-end server so that the plurality of users are communicating directly with the selected dedicated processor.

12. A computer system architecture for processing real-time applications, the architecture comprising:

a front-end server;

a plurality of dedicated processors coupled to the front-end server so that the front-end server can communicate with at least one of the plurality of dedicated processors;

a coupler communicating with the front-end server, the plurality of dedicated processors and a plurality of users, wherein one or more users communicates with the front-end server to select a selected application and the front-end server communicates with the plurality of users and at least one selected dedicated processor executes the desired application, the coupler including:

means for selecting at least one of the plurality of dedicated processors to execute the selected application; and

means for decoupling a plurality of users from the front-end server and coupling the plurality of users to the at least one of the selected dedicated processors so that the plurality of users is communicating directly with the selected dedicated processors so that the plurality of users can participate in the execution of the selected application.

13. The computer system of claim 12 further comprising a voice bridge configured to be coupled between one or more users of the plurality of users and the at least one selected dedicated processor.

14. An architecture according to claim 13 further comprising a memory coupled to the front-end server for storing a plurality of applications wherein the front-end server downloads a selected application to at least one of the plurality of dedicated processors.

15. An architecture according to claim 13 further comprising a memory for each of the plurality of dedicated processors for storing applications.

16. A method of processing an application, the method comprising:
providing a front-end server;
providing a plurality of dedicated processors coupled to the front-end server;
selecting an application;
transferring the selected application to the at least one of the plurality of dedicated processors for execution;
enabling communication between a user and the at least one of the dedicated processors such that the user can participate in the execution of the selected application;
executing the selected application at the at least one of the dedicated processors;
and
suspending communication between the user and the front end server.

17. (Currently Amended) A method according to claim 16, further comprising:
storing a plurality of applications; and
at the front-end server, generating appropriate communication signals to ~~download~~ transfer the selected application to the at least one of the plurality of dedicated processors by downloading an instance of a selected application.

18. A method according to claim 16, further comprising:
selecting at least one of the plurality of dedicated processors to execute the selected application.

19. (Currently Amended) A method according to claim 18, wherein the selecting at least one of the plurality of dedicated processors includes polling the plurality of dedicated processors by the front-end server to determine which of the plurality of dedicated processors is available to execute the selected application before that application is transferred ~~downloaded~~ to the selected at least one of the plurality of dedicated processors.

20. A method according to claim 18, wherein the selecting at least one of the plurality of dedicated processors includes the plurality of dedicated processors communicating their status to the front-end server.

21. A method according to claim 16, wherein the dedicated processors are heterogeneous.

22. A method according to claim 16, further comprising:
enabling communication between at least one additional user and the at least one of the dedicated processors such that the user and the at least one additional user can participate in the execution of the selected application.

23. The method of claim 22, further comprising:

providing a voice bridge between the user and the at least one additional user to facilitate the voice communication.

24. The method of claim 22, further comprising:

providing a voice bridge between the user and the at least one additional user and one or more processors of the plurality of dedicated processors to facilitate the voice communication.

25. (Currently Amended) A method according to claim 16, wherein ~~the selected application is a real-time application~~ front-end server authenticates a user name corresponding to said user selecting said application.

26. (Currently Amended) A method according to claim 22, ~~wherein the selected application is a real-time application~~ further including implementing a user profile for said user.

27. (Currently Amended) A method according to claim 16, wherein the selected application is a ~~real-time~~ game application.

28. (Currently Amended) A method according to claim 22, wherein the selected application is a ~~real-time~~ game application.

29. (Currently Amended) A method according to claim 25 further comprising:
executing an ~~a non-real-time~~ application on the front-end server; and
initiating communication between the user and the front-end server so that the user can participate in the execution of the ~~non-real-time~~ application.

30. (Currently Amended) A method of processing an application, the method comprising:
providing a front-end server that has access to a plurality of applications;

providing a plurality of dedicated processors that communicate with the front-end server over a first network segment, ~~the plurality of dedicated processors being inhomogeneous;~~

providing an access router enabling communication between the first network segment and a second network segment, the router distinct from the front-end server;

receiving a message that the at least one user desires a particular application, the message being received from at least one user of a plurality of users, over said second network segment, through said router and, at the front-end server that the at least one user desires a particular application, wherein said at least one user is distinct from said router;

~~selecting a dedicated processor that is of the appropriate type and capacity to run the particular application;~~

enabling communication between at least one of the plurality of users and the selected dedicated processor one of said plurality of dedicated processors that is selected by the front end server; and

executing the particular application ~~selected by the at least one user~~ on the selected dedicated processor to allow the at least one of the plurality of users to participate in execution of the particular application.

31. The method of claim 30, further comprising:

requesting at the front-end server status information from the plurality of dedicated processors; and

receiving the status information at the front-end server.

32. The method of claim 30, further comprising:

after said enabling communication between the plurality of users and the selected dedicated processor, suspending communication between the plurality of users and the front-end server such that the plurality of users are communicating directly with the selected dedicated processor.

33. The method of claim 30, wherein said enabling communication between the plurality of users and the selected dedicated processor comprises enabling

communication between the plurality of users and the selected dedicated processor along a communication path that does not pass through the front-end server.

34. (Currently Amended) A method of processing an application, the method comprising:

~~providing a front-end server;~~

providing a plurality of dedicated processors that communicate with ~~the a~~ front-end server, ~~the front-end server having access to a plurality of applications;~~

enabling communication between a first user and the front-end server;

receiving a message from the first user, said message transmitted from the first user to at the front-end server and indicating that the first user desires a particular application;

~~enabling communication between the first user and one of the plurality of dedicated processors through a communication pathway that does not pass through the front-end server~~ establishing participation with an executing instance of said particular application on one of the plurality of dedicated processors on a communication pathway that does not pass through said front-end server; and

executing the instance of said particular application on the one of the plurality of dedicated processors,

wherein said front-end server is distinct from said one of the plurality of dedicated processors,

wherein said one of the plurality of dedicated processors is distinct from said first user.

35. (Currently Amended) A method according to claim 34, further comprising coupling a second user to ~~a selected dedicated processor~~ the executing instance of the particular application such that the second user may participate in the execution of the particular application.

36. (Currently Amended) A method according to claim ~~35~~ 34, further comprising coupling additional users to ~~a selected dedicated processor~~ the one of the

plurality of dedicated processors such that the additional users can participate with the executing instance of the particular application.

37. (Currently Amended) A method according to claim 34, wherein ~~the particular application is a real-time application~~ front-end server authenticates a user name corresponding to said first user.

38. A method according to claim 34, wherein the particular application is a game application.

39. (Currently Amended) A method according to claim 34 ~~wherein the particular application is a non-real-time application~~ further including implementing a user profile for said first user.

40. (Currently Amended) A method according to claim ~~34~~ 39, ~~further comprising:~~
~~enabling communication such that the first user can participate in the execution of the non-real-time application~~ wherein said plurality of dedicated processors are heterogeneous.

41. A method according to claim 34, wherein the front end server determines the status of the dedicated processors.

42. A method according to claim 41, wherein the front end server chooses an available dedicated processor to execute the particular application.

43. (Currently Amended) A computer system architecture for processing an application, the architecture comprising:

a front-end server;

at least one dedicated processor coupled to the front-end server;

a coupler communicating with the front-end server, the dedicated processor and a plurality of users, wherein one or more users communicates to select an application, and at least one selected dedicated processor executes the selected application, the front-end server coupler including:

means for selecting at least one dedicated processor to execute the selected application;

means for loading said selected application to said at least one dedicated processor; and

means for decoupling a plurality of users from the front-end server and coupling the plurality of users to the at least one selected dedicated processor such that the plurality of users is communicating with the selected dedicated processor such that the plurality of users can participate in the execution of the selected application,

wherein said front-end server is distinct from said at least one dedicated processor,

wherein said at least one dedicated processor is distinct from said plurality of users.

44. The computer system of claim 43, further comprising a voice bridge between one or more users of the plurality of users and the at least one selected dedicated processor.

45. An architecture according to claim 43, further comprising a device coupled to the front-end server for storing a plurality of applications wherein the front-end server downloads a selected application to at least one said dedicated processor.

46. An architecture according to claim 43, further comprising a memory coupled to the at least one dedicated processor.

47. (Currently Amended) A method of running a ~~real-time~~ program, the method comprising:

providing a front-end server networked with a dedicated processor;

receiving, via an access router, at the front-end server, a selection from a user device of a particular ~~real-time~~ program; and

executing the particular ~~real-time~~ program on the dedicated processor to allow the user device to participate in the execution of the particular ~~real-time~~ program

wherein said front-end server is distinct from said dedicated processor,

wherein said dedicated processor is distinct from said user device.

48. (Currently Amended) A method of using a computer system, the method including:

providing a front end server;

providing a plurality of dedicated processors, such that the front end server can communicate with at least one of the plurality of dedicated processors; and

executing an application on the at least one of the dedicated processors to enable the users to communicate voice over a voice bridge with each other,

wherein said front-end server is distinct from said at least one of the dedicated processors,

wherein said at least one of the dedicated processors is distinct from at least one of said users.

49. The method of claim 48, wherein said executing the application includes facilitating a teleconference with another user.

50. The method of claim 48, wherein said executing the application includes forming a voice conference and connecting one of the users to the voice conference.

51. The method of claim 48, wherein said executing the application includes connecting one of the users to an existing voice conference.

52. The method of claim 48, wherein said executing the application includes forming a voice conference and enabling manipulation of a parameter of the voice conference.

53. The method of claim 48, wherein said executing the application includes forming a voice conference and enabling movement of one of the users from the voice conference to another voice conference.

54. The method of claim 48, further including sending the user's voice stream via a telephone network.

55. The method of claim 48, further including sending data with the voice.

56. (Currently Amended) A method of using a computer system in processing an application, the method including the steps of:

providing a front end server; and

providing a plurality of dedicated processors, the front end server communicating with at least one of the plurality of dedicated processors to respond to

cellular telephone communication from one of a plurality of users by enabling, with the front end server, the at least one of the dedicated processors to execute an application that facilitates communication between the one user and another of the users,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said plurality of users.

57. The method of claim 56, further including communicating voice between the one user and the other of the users.

58. The method of claim 56, further including communicating data between the one user and the other of the users.

59. The method of claim 56, further including communicating voice and data between the one user and the other of the users.

60. The method of claim 56, further including engaging in a chat room discussion with the cellular telephone.

61. (Currently Amended) A method of using a computer system in communicating with an application, the method including:
providing a front end server; and
providing a plurality of dedicated processors, the front end server communicating with at least one of the plurality of dedicated processors to respond to cellular telephone communication from an end user by enabling, with the front end server, one of the dedicated processors to execute an application to communicate with the user,
wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,
wherein said at least one of the plurality of dedicated processors is distinct from said end user.

62. The method of claim 61, further including accessing the world wide web with the cellular telephone.

63. The method of claim 61, further including communicating via the Internet with the cellular telephone.

64. The method of claim 61, wherein the application is a game application.

65. The method of claim 64, wherein the game application is played with another user.

66.(Currently Amended) A method of using a computer system in processing an application, the method including:
providing a front end server;

providing a plurality of dedicated processors such that the front end server can communicate with at least one of the plurality of dedicated processors; and

executing a game application on the at least one of the dedicated processors to enable the users to play the game with each other while suspending user communication with the front end server,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said users.

67. (Currently Amended) A method of using a computer system in processing an application, the method including:

providing a front end server;

providing a plurality of dedicated processors such that the front end server can communicate with at least one of the plurality of dedicated processors;

connecting two users via a voice bridge; and

executing a game application on at least one of the dedicated processors to enable the users to play the game with each other,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said two users.

68. (Currently Amended) A method of using a computer system in processing an application, the method including:

providing a front end server; and

providing a plurality of dedicated processors, the front end server communicating with at least one of the plurality of dedicated processors to respond to

cellular telephone communication from one of a plurality of users by enabling, with the front end server, one of the dedicated processors to launch a new instance of

~~execute~~ a game application on the at least one of the dedicated processors to enable the users to play the game with each other,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said plurality of users.

69. (Currently Amended) The method of any one of claims 56 through 68, ~~wherein the application is a real-time application.~~ further including implementing a user profile for at least one user.

70. (Currently Amended) A computer system architecture processing an application, the architecture including:

a front end server;

a plurality of dedicated processors structured such that the front end server can communicate with at least one of the plurality of dedicated processors[[:]], and

an application executing on the at least one of the dedicated processors to enable ~~the~~ users to communicate voice with each other over a voice bridge and to communicate data over an access router; and

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said users.

71. The architecture of claim 70, wherein the application facilitates a teleconference with another user.

72. The architecture of claim 70, wherein the application forms a voice conference and connects one of the users to the voice conference.

73. The architecture of claim 70, wherein the application connects one of the users to an existing voice conference.

74. The architecture of claim 70, wherein the application forms a voice conference and enables manipulation of a parameter of the voice conference.

75. The architecture of claim 70, wherein the application forms a voice conference and enables movement of one of the users from the voice conference to another voice conference.

76. The architecture of claim 70, further including a telephone network communicating a voice stream of at least one of the users.

77. The architecture of claim 70, wherein the application sends data with the voice.

78. (Currently Amended) A computer system architecture processing an application, the architecture including:

a front end server; and

a plurality of dedicated processors structured such that the front end server can communicate with at least one of the plurality of dedicated processors to respond to cellular telephone communication from one of a plurality of users by enabling the at least one of the dedicated processors to execute the application and facilitate communication between the one user and an other of the users,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said plurality of users.

79. The architecture of claim 78, wherein the cellular telephone communication includes a communication of voice.

80. The architecture of claim 78, wherein the cellular telephone communication includes a communication of data.

81. The architecture of claim 78, wherein the cellular telephone communication includes a communication of voice and data.

82. The architecture of claim 78, wherein the cellular telephone communication includes a chat room discussion.

83. (Currently Amended) A computer system architecture processing an application, the architecture including:
a front end server; and
a plurality of dedicated processors structured such that the front end server can communicate with at least one of the plurality of dedicated processors to respond to cellular telephone communication from a user by enabling the at least one of the dedicated processors to execute the application to communicate with the user,
wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,
wherein said at least one of the plurality of dedicated processors is distinct from said user.

84. The architecture of claim 83, wherein the cellular telephone communication enables accessing the world wide web.

85. The architecture of claim 83, wherein the cellular telephone communication enables communicating via the Internet.

86. The architecture of claim 83, wherein the application is a game application.

87. The architecture of claim 86, wherein the game application facilitates a multi-user game.

88. (Currently Amended) A computer system architecture processing an application, the architecture:

a front end server;

a plurality of dedicated processors structured such that the front end server can communicate with at least one of the plurality of dedicated processors, wherein, of the dedicated processors, ~~at least one of the dedicated processors is not homogeneous~~; and

a game application executed on the at least one of the plurality of dedicated processors to enable the users to play the game with each other over an access router,
wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said users.

89. (Currently Amended) A computer system architecture processing an application, the architecture including:

a front end server;

a plurality of dedicated processors such that the front end server can communicate with at least one of the plurality of dedicated processors; and

a game application executed on more than one of the dedicated processors to enable the users to play the game with each other, while suspending user communication with the front end server,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said users.

90. (Currently Amended) A computer system architecture processing an application, the architecture including:

a front end server; and

a plurality of dedicated processors such that the front end server can communicate with at least one of the plurality of dedicated processors to respond to cellular telephone communication from one of a plurality of users by enabling, with the front end server, one of the dedicated processors to execute a game application on the dedicated processor to enable the users to play the game with each other,

wherein said front-end server is distinct from said at least one of the plurality of dedicated processors,

wherein said at least one of the plurality of dedicated processors is distinct from at least one of said plurality of users.

91. (Currently Amended) The architecture of any one of claims 80 through 90, ~~wherein the application is a real-time application~~ further including implementing a user profile for at least one user.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 15550US02)

<i>In the Reissue Application of:</i> John Bretscher	<i>Examiner:</i> Ajay M. Bhatia
<i>Application No.:</i> 10/821,833	<i>Group Art Unit:</i> 2145
<i>Filed:</i> April 9, 2004	<i>Confirmation No.:</i> 8466
<i>For:</i> COMPUTER SYSTEM ARCHITECTURE METHOD FOR MULTI-USER, REAL-TIME APPLICATIONS	<i>Express Mail Label No.</i> EV 219881483 US
<i>Original Patent:</i> 6,370,564	<i>Date of Express Mailing</i> <i>June 6, 2007</i>

STATEMENT OF CLAIMS AND SUPPORT FOR CLAIM CHANGES
(37 C.F.R. § 1.73(c))

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Dear Examiner Bhatia:

1. The status of the claims as a result of the amendment submitted herewith
is:

Claims Cancelled: None

Claims Amended: 17, 19, 25-30, 34-37, 39-40, 43, 47-48, 56, 61, 66-70, 78,
83, and 88-91

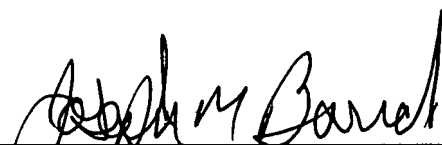
New Claims Added: None

2. The support in the disclosure of the patent for the changes made to the claims is as follows:

The foregoing amendments to the claims are believed to be supported by the same matter supporting the same claims as originally filed and are believed to be supported by the original patent.

Respectfully submitted,

Date: June 6, 2007



Joseph M. Barich
Registration No. 42,291

MCANDREWS, HELD & MALLOY, LTD.
500 West Madison Street, 34th Floor
Chicago, IL 60661

Telephone: (312) 775-8000
Facsimile: (312) 775-8100